

# Superdensity can reinforce street life

The question is where to locate different urban forms in relation to our street network, not whether high rise is appropriate in London, says Ben Derbyshire

London has a long and rich history with ancient foundations in early settlement bordering the Thames and throughout its history, and across its entire extent, the urban fabric of the City was – until the 1960's, at least - predicated on the ordering principles dictated by the urban street. Our street network and our tradition of street life is in my view the City's greatest asset. Our success in creating mixed communities and a lively mixes of uses is the envy of the world and relies for its success largely upon the street as a means of successfully juxtaposing diverse backgrounds, cultures and activities.

Today, Londoners increasingly demand that their city should be developed as an extension of the network of these streets. Londoners expect access to all areas on ground that is in public ownership and that is policed by consent, ground that is by definition shared space and under collective control. Streets provide a recognisable physical language that reinforces public safety and control through passive supervision and the public witness comings and goings and there is a whole legislative framework which supports these principles. One of the reasons London has become such a desirable global destination for people and their money from all around the world is that this powerful democratic principle instills order and a sense of safety and security.

So London is once again attracting people in large numbers to come and stay, and the hemorrhaging of London's indigenous population has been staunch so young Londoners no longer flee to safer places to bring up their children. The resulting rise in population has reopened the discussion of density and how best to accommodate ever more citizens and in what built form to create new accommodation for them. The debate has crystallized around the question of the suitability of high-rise housing – typified by a recent event organised by New London Architecture, The Centre for London and The London School of Economics in June 2014, entitled "The Towers Debate: Does London need more tall buildings?"

Well, one thing is clear and that is that London needs more buildings - and more homes in particular. But there is a real danger in polarising the debate in this way, and focusing on the skyline as the most important issue at stake in the densification of London. The risk is that we will be distracted from the most important issue - which is how we maintain and reinforce streets and street life while we build to accommodate a growing population. And here we should dispel the notion that the only way is to build up. As Tony Travers of the LSE himself points out, if London were built out over its full extent to match the streets and squares of Islington, beloved of the city's politicians, we could accommodate 20 million people, double the number predicted to be living in the capital by 2015.

So the question is how to organise new accommodation in



relation to our street network so as to enhance the quality of street life. There are two distinct cases with different remedies for intervention - one where the population density is too low, and the other where too many people jostle for the available space.

Here its worth noting that in some areas of London the population density is so low it is, according to Professor Anne Power (also of LSE), insufficient to sustain convenient local shops and services, and infrequent pedestrian movement leaves streets devoid of social interaction and feeling unsafe. Where the population density is unsustainably low, the objective is additional accommodation arranged along and directly accessible from street frontages – town houses at low density, mansion blocks for mid-rise districts

In other areas, close to transport hubs and where there is a high intensity of commercial, retail and leisure use, pavements are so overcrowded that pedestrians jostle in dangerously uncomfortable proximity to busy traffic. Here the issue is to create more high quality outdoor space to accommodate pedestrian movement and provide a suitable environment for people to sit, rest or enjoy café life free of noise and pollution. In these places, not only is the additional cost of high rise offset by the extra value derived from proximity to transportation, but the higher plot ratios and relatively small footprints create the opportunity to make more ground level space for



Benjamin Derbyshire is Managing Partner, HTA Design LLP



people to move and congregate.

Thus, to return to the point about the misplaced argument over whether or not high rise is an appropriate built form for London, in reality the question is where to locate different urban forms in relation to our street network and the task of creating livable, safe, sociable and self sustaining neighbourhoods.

Tottenham Hale is an excellent example to use as an illustration of how such an approach might work in practice. As a transportation hub, it brings together a tube line, a national rail line connecting central London to the regional airport at Stansted and an important road junction with a bus interchange. A masterplan prepared by Arup Associates illustrates how a street network surrounds the interchange and routes funnel footfall as pedestrian movement converges on the station. The Arup masterplan picks up on block dimensions established in the streets of 19th century terraced houses and illustrates increasing density through the use of mid rise perimeter blocks towards the centre.

But as these residential streets meet the major road junction that circulates around the transport hub in a giratory of large radius bends, the geometry of blocks breaks down into a number of isolated island sites of irregular form. Here, the dominance of road engineering increases the proportion of ground given over to motor traffic, coinciding with the maximum intensity of footfall as passengers gravitate towards the bus and train stations. Not only are people competing for ground space with lorries, cars and buses, but this would be an ideal place for people to meet each other and enjoy leisure together where it not for the appalling environment, polluted with noise and vehicle emissions.

Today, the environment of Tottenham Hale is a jumble of poor quality retail sheds and drive through outlets in a hostile microclimate and spatially completely incoherent. It's a thoroughly unpleasant place to be and offers no incentive whatsoever to linger. So the island sites of Tottenham Hale are the right location to plant the footprint of a cluster of high-rise buildings designed in such a way that pedestrians can circulate

amongst them, and enjoy cafés shops and meeting spaces away from the traffic, en route to and from trains and buses. This is a place where as much of the ground plane as possible should be given over to people and the temptation must be avoided of filling the island sites with podia (and towers over) that force pedestrians to the edge of the sites into close proximity to the traffic. Central St Giles, at the junction of Tottenham Court Road and Shaftsbury Avenue, is a good example of the right kind of environment to create here.

The design of this space between the base of the towers needs to be such as to allow sunlight and views from surrounding approaches to penetrate. The form of the tower structures therefore needs to be slender with adequate space between. And this is a location where the towers themselves, disgorging occupants at ground level, will further enliven the space, contributing custom to the shops, cafes and services. Such a cluster of towers should be composed with the tallest at the centre of the group, falling away to the edges. The cluster thus not only provides a spine of circulation connecting the transport hub to its surroundings but also acts to locate Tottenham Hale in a number of significant distant views; from across the Lea Valley, from the North Circular which passes a mile or so to the north, and from Tottenham High Street. ■



# Superbia: intensifying the suburbs

Ben Derbyshire reports on a study of urban intensification in outer London – a work in progress

The study aims to identify how urban intensification of suburban London might contribute to an increase in housing supply, promote economic activity, improve local service provision, reduce congestion, improve the quality of life, the choices available and sustainability in the suburbs of the outer Boroughs.

The London Housing Strategy acknowledges a shortfall between the present rate of supply (averaging 16,300 homes per year over the last 22 years), the theoretical maximum capacity identified by the Strategic Housing Land Availability Assessment (SHLAA) of 42,000 homes per year and the requirement to meet demand of as much as 50-60,000 homes per year.

We intend the outcome of the study to be complimentary to the wider plan to increase housebuilding in Opportunity Areas across the capital. And we recognise that the capacity to increase supply identified in the recent SHLAA assessment already includes the contribution of all currently identified brownfield sites, infill sites, redeveloped local authority stock and possible urban extensions.

The study recognizes the shortfall in supply from these sources and turns its attention to the possibilities inherent in

London's very low density and often under-occupied suburban districts to see how the shortfall may be reduced in the future. It takes a starting point that London's huge suburban tract is of variable quality and seeks to identify areas where there is potential for enhanced value through intensification.

We calculate (on the basis of the 2011 census data) that if just 10 per cent of the semi detached stock of outer London was fully rather than under-occupied it could accommodate 100,000 more people than at present. If the owners of this 10 per cent took up their full entitlement of permitted development rights this could contribute the equivalent of 6,000 homes per year to the housing supply of London. And redevelopment of just 10 per cent of the existing stock of poor quality semis at double its current density of only 30 or so homes per hectare could increase supply by a staggering 20,000 new homes each year.

The objective of the Superbia project is to build on the inherent quality of the suburbs (individual homes on their own plots with easy access to public and private open space set in a verdant environment) with a set of policies targeted at meeting popular aspirations. The underlying premise being that by offering people choices that are currently denied them, a nota-

## The study group have made a number of preliminary suggestions for discussion:

1. Designation of Housing Zones. Designation of priority status for areas of poor environmental quality, and high levels of social deprivation and fuel poverty. A planning policy framework for intensification including enhanced permissible development rights, relaxation of density limitations and restrictions on development in gardens. Area based collaboration integrating contributions from the local authority social landlords, private housing developers, and energy providers, amongst others. Area based fiscal incentives (see below). Pre-negotiated development agreement for standard intensification typologies.
2. Tax Increment Financing Investment in local infrastructure and public realm improvements enabled by prudential borrowing financed through precept on locally raised taxes, especially increases in Community Charge and Stamp Duty levied in areas of urban intensification.
3. Fiscal incentivisation of population intensification. Measures (possibly area based and time limited) to encourage intensification activity such as; inheritance tax breaks for downsizers, Community Charge holidays or banding concessions for take up of permitted development opportunities. Green Deal interest reductions for shared, collective or neighbourhood level energy retrofit measures. Stamp Duty rebates for retro-fitted homes.
4. Private sector and nonstatutory financial interventions. Development risk guarantees for homeowners participating in redevelopment or radical conversion initiatives. Advantageous lending rates for development and retrofit initiatives that reduce running costs. Enhanced feed in tariffs/reduced unit costs for participants in neighbourhood energy sharing schemes. Equity release schemes linked to retrofit/permitted development opportunities. Buyback schemes for downsizers – enabling site assembly for intensification schemes.
5. Redevelopment of high street frontage. Development of high quality

homes for downsizers in locations close to appropriate services, following HAPPY principles. Significant increase in residential densities (doubling or trebling) and re-provision of smaller amounts of retail floor-space that can be serviced from the street, liberating rear service areas for conversion to high quality shared public realm. Improvements to public realm, provision for shared transportation – mobility scooters, electric bikes and cars.

6. Increasing the developable envelope. Alongside enhanced permissible development right, relaxation of building lines to bring development frontage closer to back of pavement, reduction in back to back distances and increase in permissible height of development.

7. Packaged infill/extension/redevelopment typologies. Based on the typological uniformity of the archetypal semi detached suburbia, a range of standard typologies (possibly prefabricated, at least in part). The range of types would include roof and rear extensions, mews houses and gap infilling types.

8. Planning consent through Community Right to Build. Co-housing and custom build projects (see below) by collaborating neighbours enabled through planning legislation creating permitted development opportunities in consenting neighbourhoods. Area based referenda based on mutual consent.

9. Co-housing development support Packaged development service for neighbours collaborating in site assembly opportunities for urban intensification scheme. This would include advantageous loans, under-written development risk, legal & design services, boilerplate development agreements, type approved design solutions.

10. Custom build. Packaged development service for purchasers of high quality, branded manufactured homes, including site acquisition, choice of appropriate mortgages, manufactured home showroom, site and service preparation, pre-negotiated framework agreements with LPA for approved types.

*The Superbia project is a collaboration led by Ben Derbyshire and Richard Blakeway, the Deputy Mayor for Housing, Land and Property at the GLA, working with members of HTA's team and others.*

riously static situation might be transformed into a dynamic one. The project will explore how a programme of urban intensification might trigger changes resulting over time in a much improved fit of population in accommodation; more sustainable, efficient and affordable. Suburban London has huge potential resources that cannot be ignored if we are to deliver a supply of affordable housing in a sustainable environment for Londoners. We hope to tackle the resistance to change that is inherent in suburban areas with an alluring portrayal of future possibilities.

HTA's work on newly built ecologically sensitive and sustainable developments, such as at Hanham Hall in Bristol, shows us that to achieve the desired outcomes collaborative arrangements are necessary, enabling residents to share in the benefits of investment in development and supporting infrastructure. We propose to explore investment, ownership and governance models that would enable residents to benefit collectively at a variety of different scales; individual plots, combining adjacent ownerships, whole blocks and neighbourhoods.

Collaborative consumption is a tendency for people who can share information easily to share goods and services more readily. It is enabled by the revolution in the smart-phone and the apps that it supports. Our theory is that if people have easy enough access to car and energy sharing, they will need a lot less of both to be made available to them. Instead of cars sitting on roads or car parks for large parts of the day, they will be in use, shared. This will make better use of the cars, roads and increasingly scarce resources.

We intend to make a submission to the Technology Strategy Board (TSB) for funding to take the technical aspects of the study forward. Our idea is to create a modelling tool

which can be used to assess the energy demands and loads for an area of suburbia connected to an individual substation. What we are interested in demonstrating is an ability to intensify the occupancy of a suburban area including building new buildings, but which can be designed in such a way as to put no additional peak load on the local Grid substation. We anticipate that the resulting tool would be of use to local authorities, policy makers, consultants, engineers, power companies and others wishing to plan for a more sustainable future. It would need to be sufficiently user friendly to be useful to a nonengineer who wanted to investigate scenarios for a particular place.

The facts are striking. According to The Centre for London, 75 per cent of people in outer London Boroughs (compared to 50 per cent in inner London) oppose new housing development in their neighbourhoods. In Bexley, based on the 2011 Census data, 45 per cent of the population inhabit the ubiquitous three bed semi. 60 per cent of households comprise two persons or less, 80 per cent are owner occupiers, 66 per cent own cars, 24 per cent own two or more cars. In one neighbourhood of Bexley which we examined as a pilot, we estimated that at present 38 households comprise 110 people including only 18 children, responsible for generating 304 tonnes of CO2 per annum. This pilot demonstrated how a series of changes over time could increase the population to 222 people at the same time as reducing the CO2 generation of twice the original size to zero – a dramatic transformation.

Whilst it's clear that Nimby attitudes thrive in outer London, we seek to explore the extent to which self interest may overcome resistance to change. The figures support our contention that doubling the density of just 10 per cent of the outer London Boroughs creates the capacity for 20,000 new homes per annum – the area covered is simply huge so the capacity is correspondingly great and should not be overlooked either by the Local Authorities concerned or by London's City Fathers, who seek to find solutions to its housing crisis.

But how might such changes be triggered, what incentives might begin to unlock the potential?

Is there a case for special measures based on the principle of Housing Zones proposed in the GLA's Housing Strategy? Or should the incentives be more generally applied across the outer Boroughs and London as a whole?

We envisage area based schemes, centred on under-developed transport hubs where urbanisation in a concentric pattern could create outward moving contours of increased value, like the ripples in a pond, triggering the take up of intensification schemes in a variety of typologies which we will explore and illustrate. Our hope is that we can postulate a viable scenario for processes capable of transforming the poorer, often subtopian areas of suburbia into a vision of thriving, vibrant and sustainable placemaking – a vision of Supurbia! ■



**The Team**  
Yolande Barnes,  
Director, World  
Research, Savills  
Rory Bergin, Partner:  
Sustainable Futures,  
HTA Design LLP  
Richard Blakeway,  
Deputy Mayor for  
Housing, Land and  
Property, GLA  
Ben Derbyshire,  
Managing Partner, HTA  
Design LLP  
Kathryn Firth, Chief of  
Design, London Legacy  
Development  
Corporation  
Lucy Smith, Partner:  
Communications  
Design, HTA Design

11. Public realm improvements. Phased reduction in space allocated to cars in private ownership alongside take up of modal shift to sustainable transport and car/bike/mobility scooter sharing. Introduction of street trees and biodiverse green infrastructure.

12. Car sharing schemes Free up public realm by reducing car ownership through sharing schemes. A local company owned by all residents owns cars and electric bikes, they charge their batteries from PV panels mounted on each dwelling. Each owner has use of the car/s.

13. Neighbourhood energy storage Use battery storage to reduce peak loads. Store energy when it is cheap from the Grid or from solar PV. If the car is charged, then charge the house battery instead. Use timers or software to control when washing gets done. All of this is aimed at maintaining peak usage at existing levels or less. No new grid infrastructure should be needed. This could include some battery storage at the sub-station.

14. Retrofit DC networks Use DC current for household equipment such as lighting, entertainment and IT equipment. This reduces power losses due to the AC/DC conversion.

15. Neighbourhood water management scheme. Water usage and waste streams should be limited to reduce the impact on sewers and drainage systems, this could be done by providing low water use appliances and greywater/rainwater recycling systems and installing sustainable urban drainage.

16. Neighbourhood intranet of things. Set up a hire business alongside the car/ebikes that hires equipment that many people own but never actually use, drills, hedge trimmers, car washers, exercise equipment, projection facilities, construction tools, mowing machines. We propose one or more pilot studies in collaboration with participating Local Authorities, where we intend to explore the possibilities of these approaches based on realistic assessments of actual and potential value. We recognise that piecemeal nature of ownership in London's suburbs means that the outcome would need to be capable of supplying sufficient yield for the owners of such property to create the necessary incentive for change.